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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,496	05/10/2001	Kaoru Murata	0425-0837P	5554

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EXAMINER

THERKORN, ERNEST G

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 07/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/831,496

Applicant(s)

MURATA

Examiner

THELKORN

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on June 26, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2 and 8-13 and 15-18 is/are pending in the application.
- 4a) Of the above, claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 8-13, and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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Claims 2, 8-13, and 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are directed to an improper Markush group. The species do not “(1) share a common utility, and (2) share a substantial structural feature disclosed to be essential to that utility.”

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. “low flow velocity gradient high performance liquid chromatography apparatus” lacks antecedent basis.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 8, 16/8, 17/16/8, and 18/8 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koch (U.S. Patent No. 4,475,821).

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The claims are considered to read on Koch (U.S. Patent No. 4,475,821). However, if a difference exists between the claims and Koch (U.S. Patent No. 4,475,821), it would reside in optimizing the steps and elements of Koch (U.S. Patent No. 4,475,821). It would have been obvious to optimize the steps and elements of Koch (U.S. Patent No. 4,475,821) to enhance separation.

Claims 2, 8-13, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa (U.S. Patent No. 5,117,109) in view of Koch (U.S. Patent No. 4,475,821). At best, the claims differ from Asakawa (U.S. Patent No. 5,117,109) in reciting a flow velocity gradient of 250 microliters per minute or less. Koch (U.S. Patent No. 4,475,821) (column 1, lines 11-30) discloses that a flow rate of 100 microliters per minute are frequently used in chromatography. It would have been obvious to use a flow of 100 microliters per minute in Asakawa (U.S. Patent No. 5,117,109) because Koch (U.S. Patent No. 4,475,821) (column 1, lines 11-30) discloses that a flow rate of 100 microliters per minute are frequently used in chromatography.

Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asakawa (U.S. Patent No. 5,117,109) in view of Koch (U.S. Patent No. 4,475,821) as applied to claims 2, 8-13, and 16-18 above, and further in view of Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 560-561. At best, the claims differ from Asakawa (U.S. Patent No. 5,117,109) in view of Koch (U.S. Patent No. 4,475,821) in reciting analyzing a trace amount of a component. Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 560-561 discloses that liquid chromatography is a powerful and widely used technique for analyzing trace components. It would have been obvious to analyze trace component in Asakawa (U.S. Patent

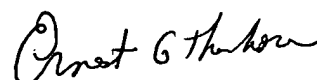
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No. 5,117,109) in view of Koch (U.S. Patent No. 4,475,821) because Snyder, Introduction to Modern Liquid Chromatography, 1979, pages 560-561 discloses that liquid chromatography is a powerful and widely used technique for analyzing trace components.

Claim 15 is withdrawn from consideration as being drawn to a non-elected species.

The remarks urge that the election of species is improper because all the species have previously been examined. However, the claims were previously written so that all five species did not have to be examined. There was no claim of the scope of claim 15 and applicant has not conceded that the species are art recognized equivalents. The examiner merely keep the species together until it became a serious burden to examine them individually. As such, the election of species has been reconsidered, deemed proper, and made final.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (703) 308-0362.



**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT/12  
July 10, 2003